FORM PTO-1449/A/B (Modified)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet	1	of	12

APPLICATION NO.: 10/588,833		ATTY. DOCKET NO.: H0498.70217US02	
FILING DATE: August 9, 2006		CONFIRMATION NO.: 4453	
APPLICANT: Lieber, et al.			
GROUP ART UNIT: 2667		EXAMINER: Not yet assigned	

U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		3,873,359		Lando	03-25-1975
		3,873,360		Lando	03-25-1975
		3,900,614		Lando	08-19-1975
		4,673,474		Ogawa	06-16-1987
		4,939,556		Eguchi et al.	07-03-1990
		5,023,139		Birnboim et al.	06-11-1991
		5,089,545		Pol	02-18-1992
		5,252,835		Lieber et al.	10-12-1993
		5,274,602		Glenn	12-28-1993
		5,453,970		Rust et al.	09-26-1995
		5,475,341		Reed	12-12-1995
		5,512,131		Kumar et al.	04-20-1996
		5,524,092		Park	06-04-1996
		5,537,075		Miyazaki	07-17-1996
		5,539,214		Lynch et al.	07-23-1996
		5,581,091		Moskovits et al.	12-03-1996
		5,589,692		Reed	12-31-1996
		5,607,876		Biegelsen et al.	03-04-1997
		5,620,850		Bamdad et al.	04-15-1997
		5,640,343		Gallagher et al.	06-17-1997
		5,726,524		Debe	03-10-1998
		5,739,057		Tiwari et al.	04-14-1998
		5,747,180		Miller et al.	05-05-1998
		5,751,156		Muller et al.	05-12-1998
		5,776,748		Singhvi, et al.	07-07-1998
		5,824,470		Baldeschwieler et al.	10-20-1998
		5,830,538		Gates et al.	11-03-1998
		5,840,435		Lieber et al.	11-24-1998
		5,847,565		Narayanan	12-08-1998
		5,858,862		Westwater et al.	01-12-1999
		5,864,823		Levitan	01-26-1999
		5,897,945		Lieber et al.	04-27-1999
		5,900,160		Whitesides, et al.	05-04-1999
		5,903,010		Flory et al.	05-11-1999
		5,908,692		Hamers et al.	06-01-1999
		5,916,642		Chang	06-29-1999
		5,942,443		Parce et al.	08-24-1999
		5,997,832		Lieber et al.	12-07-1999

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
	APPLICANT: Lieber, et al.	
Sheet 2 of 12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

U.S. PATENT DOCUMENTS

		6,036,774		Lieber et al.	03-14-2000
		6,038,060		Crowley	03-14-2000
		6,060,121		Hidber, et al.	05-05-2000
		6,060,724		Flory et al.	05-09-2000
		6,069,380		Chou et al.	05-30-2000
		6,123,819		Peeters	09-26-2000
		6,128,214		Kuekes et al.	10-03-2000
		6,143,184		Martin et al.	11-07-2000
		6,149,819		Martin et al.	11-21-2000
		6,159,742		Lieber et al.	12-12-2000
		6,180,239	B1	Whitesides, et al.	01-30-2001
		6,187,165	B1	Chien et al.	02-13-2001
		6,190,634	B1	Lieber et al.	02-20-2001
		6,203,864	B1	Zhang et al.	03-20-2001
		6,207,392	B1	Weiss et al.	03-27-2001
		6,211,464		Mochizuki, et al.	04-03-2001
		6,231,744	B1	Ying et al.	05-15-2001
		6,256,767	B1	Kuekes et al.	07-03-2001
		6,270,074	B1	Rasmussen et al.	08-07-2001
		6,278,231	B1	Iwasaki et al.	08-21-2001
		6,286,226	B1	Jin	09-11-2001
		6,287,765	B1	Cubicciotti	09-11-2001
		6,314,019	B1	Keukes et al.	11-06-2001
		6,325,904	B1	Peeters	12-04-2001
		6,340,822	B1	Brown et al.	01-22-2002
		6,346,189	B1	Dai et al.	02-12-2002
		6,355,198	B1	Kim, et al.	03-12-2002
		6,359,288	B1	Ying et al.	03-19-2002
		6,437,329	B1	Yedur et al.	08-20-2002
		6,459,095	B1	Heath et al.	10-01-2002
		6,465,132	B1	Jin	10-15-2002
		6,468,657		Hou, et al.	10-22-2002
		6,468,677		Benton, et al.	10-22-2002
		6,503,375	B1	Mayden et al.	01-07-2003
		6,528,020	B1	Dai et al.	03-04-2003
		6,538,367	B1	Choi et al.	03-25-2003
		6,559,468	B1	Kuekes et al.	05-06-2003
		6,586,095	B2	Wang et al.	07-01-2003
		6,628,053	B1	Den et al.	09-30-2003
		6,716,409	B2	Hafner et al.	04-06-2004

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
	APPLICANT: Lieber, et al.	
Sheet 3 of 12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

U.S. PATENT DOCUMENTS

		6,741,019	B1	Filas et al.	05-25-2004
		6,743,408	B2	Lieber et al.	06-01-2004
		6,756,025	B2	Colbert et al.	06-29-2004
		6,756,795	B2	Hunt et al.	06-29-2004
		6,762,056	B2	Peeters	07-13-2004
		6,781,166	B2	Lieber, et al.	08-24-2004
		6,803,840	B2	Hunt et al.	10-12-2004
		6,808,746	B1	Dai et al.	10-26-2004
		6,815,706	B2	Li et al.	11-09-2004
		6,846,565	B2	Korgel et al.	01-25-2005
		6,872,645	B2	Duan et al.	03-29-2005
		6,882,051		Majumdar et al.	04-19-2005
		6,882,767	B2	Yang et al.	04-19-2005
		6,902,720	B2	McGimpsey	06-07-2005
		6,946,197	B2	Yadav et al.	09-20-2005
		6,958,216	B2	Kelley et al.	10-25-2005
		6,962,823	B2	Empedocles et al.	11-08-2005
		6,974,706	B1	Melker et al.	12-13-2005
		6,996,147	B2	Majumdar et al.	02-07-2006
		7,048,903		Colbert, et al.	05-23-2006
		7,129,554		Lieber, et al.	10-31-2006
		7,172,953		Lieber, et al.	02-06-2007
		7,211,464	B2	Lieber, et al.	05-01-2007
		2001/0054709	A1	Heath, et al.	12-27-2001
		2002/0013031		Chen, et al.	01-31-2002
		2002/0040805	A1	Swager	04-11-2002
		2002/0055239	A1	Tuominen et al.	05-09-2002
		2002/0084502	A1	Jang et al.	07-04-2002
		2002/0086335	A1	Massey et al.	07-04-2002
		2002/0112814	A1	Hafner et al.	08-22-2002
		2002/0117659	A1	Lieber et al.	08-29-2002
		2002/0122766	A1	Lieber et al.	09-05-2002
		2002/0130311	A1	Lieber, et al.	09-19-2002
		2002/0130353	A1	Lieber et al.	09-19-2002
		2002/0146714	A1	Lieber et al.	10-10-2002
		2002/0158342	A1	Tuominen et al.	10-31-2002
		2002/0172820	A1	Majumdar et al.	11-21-2002
		2002/0175408	A1	Majumdar et al.	11-28-2002
		2002/0179434	A1	Dai et al.	12-05-2002
		2002/0187504	A1	Reich et al.	12-12-2002

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)				APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
				APPLICANT: Lieber, et al.	
Sheet	4	of	12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

U.S. PATENT DOCUMENTS

		2003/0001091	A1	Nakayama et al.	01-02-2003
		2003/0003300	A1	Korgel et al.	01-02-2003
		2003/0032892	A1	Erlach et al.	02-13-2003
		2003/0048619	A1	Kaler et al.	03-13-2003
		2003/0073071	A1	Fritz et al.	04-17-2003
		2003/0089899	A1	Lieber et al.	05-15-2003
		2003/0098488	A1	O'Keeffe et al.	05-29-2003
		2003/0113713	A1	Glezer, et al.	06-19-2003
		2003/0113940	A1	Erlanger et al.	06-19-2003
		2003/0121764	A1	Yang et al.	07-03-2003
		2003/0124509	A1	Kenis, et al.	07-03-2003
		2003/0124717	A1	Awano et al.	07-03-2003
		2003/0134267	A1	Kang et al.	07-17-2003
		2003/0134433	A1	Gabriel et al.	07-17-2003
		2003/0135971	A1	Liberman et al.	07-24-2003
		2003/0156992	A1	Anderson et al.	08-21-2003
		2003/0186522	A1	Duan	10-02-2003
		2003/0186544	A1	Yoshitaka, et al.	10-02-2003
		2003/0189202	A1	Li et al.	10-09-2003
		2003/0197456	A1	Den et al.	10-23-2003
		2003/0200521	A1	DeHon et al.	10-23-2003
		2004/0005723	A1	Empedocles et al.	01-08-2004
		2004/0026684	A1	Empedocles	02-12-2004
		2004/0067530	A1	Gruner	04-08-2004
		2004/0095658	A1	Buretea et al.	05-20-2004
		2004/0106203	A1	Stasiak et al.	06-03-2004
		2004/0112964	A1	Empedocles et al.	06-17-2004
		2004/0113138	A1	DeHon, et al.	06-17-2004
		2004/0113139	A1	DeHon, et al.	06-17-2004
		2004/0118448	A1	Scher et al.	06-24-2004
		2004/0136866	A1	Pontis et al.	07-15-2004
		2004/0146560	A1	Whiteford et al.	07-29-2004
		2004/0157414	A1	Gole et al.	08-12-2004
		2004/0188721		Lieber, et al.	09-30-2004
		2004/0213307	A1	Lieber, et al.	10-28-2004
		2005/0037374	A1	Melker et al.	02-17-2005
		2005/0064185	A1	Buretea et al.	03-24-2005
		2005/0064731	A1	Park et al.	03-24-2005
		2005/0066883	A1	Dubrow et al.	03-31-2005
		2005/0072213	A1	Besnard et al.	04-07-2005

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
	APPLICANT: Lieber, et al.	
Sheet 5 of 12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

U.S. PATENT DOCUMENTS

		2005/0079533	A1	Samuelson et al.	04-14-2005
		2005/0079659	A1	Duan et al.	04-14-2005
		2005/0100960	A1	Dai et al.	05-12-2005
		2005/0101026	A1	Sailor et al.	05-12-2005
		2005/0109989	A1	Whiteford et al.	05-26-2005
		2005/0110064	A1	Duan et al.	05-26-2005
		2005/0161662	A1	Majumdar et al.	07-28-2005
		2005/0181587	A1	Duan et al.	08-18-2005
		2005/0201149	A1	Duan et al.	09-15-2005
		2005/0202615	A1	Duan et al.	09-15-2005
		2005/0212079	A1	Stumbo et al.	09-29-2005
		2005/0214967	A1	Scher et al.	09-29-2005
		2005/0219788	A1	Chow et al.	10-06-2005
		2005/0230356	A1	Empedocles et al.	10-20-2005
		2005/0253137	A1	Whang et al.	11-17-2005
		2005/0287717	A1	Heald et al.	12-29-2005
		2006/0008942	A1	Romano et al.	01-12-2006
		2006/0009003	A1	Romano et al.	01-12-2006
		2006/0019472	A1	Pan et al.	01-26-2006
		2006/0054936	A1	Lieber et al.	03/16/2006
		2006/0175601	A1	Lieber et al.	08/10/2006
		2006/0237749	A1	Lieber et al.	10/26/2006
		2007/0026645	A1	Lieber et al.	02/01/2007
		2007/0032023	A1	Lieber et al.	02/08/2007
		2007/0032051	A1	Lieber et al.	02/08/2007
		2007/0032052	A1	Lieber et al.	02/08/2007
		2007/0048492	A1	Lieber et al.	03/01/2007

FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
/D.W./		EP	1 087 413	A2	LUCENT TECHNOLOGIES, INC.	03-28-2001	
/D.W./		JP	2000-31462	A	TORU ET AL.	01-26-2000	
/D.W./		JP	11-11917	A2	CANON INC.	01-19-1999	
/D.W./		WO	91/06036	A1	RESEARCH CORPORATION TECHNOLOGIES, INC.	05-02-1991	
/D.W./		WO	95/02709	A2	PRESIDENT & FELLOWS OF HARVARD COLLEGE	01-26-1995	
/D.W./		WO	96/29629	A2	PRESIDENT & FELLOWS OF HARVARD COLLEGE	09-26-1996	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
	APPLICANT: Lieber, et al.	
Sheet 6 of 12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

FOREIGN PATENT DOCUMENTS

/D.W./		WO	97/33737	A1	PRESIDENT & FELLOWS OF HARVARD COLLEGE	09-18-1997	
/D.W./		WO	97/34025	A1	PRESIDENT & FELLOWS OF HARVARD COLLEGE	09-18-1997	
/D.W./		WO	98/39250	A1	WILLIAM MARSH RICE UNIVERSITY	09-11-1998	
/D.W./		WO	98/42620	A1	JAPANESE FINE CERAMICS CENTER	10-01-1998	
/D.W./		WO	98/48456	A1	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	10-29-1998	
/D.W./		WO	99/63347	A2	JONES, MARK	12-09-1999	
/D.W./		WO	00/09443	A1	BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY	02-24-2000	
/D.W./		WO	00/17101	A1	WILLIAM MARSH RICE UNIVERSITY	03-30-2000	
/D.W./		WO	00/19494	A1	XIDEX CORPORATION	04-06-2000	
/D.W./		WO	00/51186	A2	CLAWSON	08-31-2000	
/D.W./		WO	01/03208	AI	PRESIDENT AND FELLOW OF HARVARD COLLEGE (ORIGINAL AND CORRECTION VERSION)	01-11-2001	
/D.W./		WO	01/44796		Board of Trustees of the Leland Stanford Junior University	06-21-2001	
/D.W./		WO	02/080280	A1	REGENTS OF THE UNIVERSITY OF CALIFORNIA	10-10-2002	
/D.W./		WO	02/086480	A1	STANFORD UNIVERSITY	10-31-2002	
/D.W./		WO	02/17362	A2	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	02-28-2002	
/D.W./		WO	02/31183	A1	BIOFORCE LABORATORY, INC.	04-18-2002	
/D.W./		WO	02/48701	A2	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	06-20-2002	
/D.W./		WO	03/005450	A2	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	01-16-2003	
/D.W./		WO	03/016901	A1	SAMSUNG ELECTRONICS CO., LTD.	02-27-2003	
/D.W./		WO	03/053851	A2	PRESIDENT & FELLOWS OF HARVARD COLLEGE	07-03-2003	
/D.W./		WO	03/054931	A1	VIRTANEN, JORMA ET AL.	07-03-2003	
/D.W./		WO	03/063208	A2	CALIFORNIA INSTITUTE OF TECHNOLOGY	07-31-2003	
/D.W./		WO	04/003535	A1	NANOSYS INC.	01-08-2004	
/D.W./		WO	04/010552	A1	PRESIDENT & FELLOWS OF HARVARD COLLEGE	01-29-2004	
/D.W./		WO	04/032190	A2	NANOSYS, INC.	04-15-2004	
/D.W./		WO	04/032193	A2	NANOSYS, INC.	04-15-2004	
/D.W./		WO	04/034025	A2	NANOSYS, INC.	04-22-2004	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
	APPLICANT: Lieber, et al.	
Sheet 7 of 12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

FOREIGN PATENT DOCUMENTS

/D.W./		WO	05/089165	A2	NANOSYS, INC.	09-29-2005	
/D.W./		WO	05/093831	A1	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	10-06-2005	
/D.W./		WO	05/094440	A2	NANOSYS INC.	10-13-2005	
/D.W./		WO	05/114282	A2	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	02-01-2005	
/D.W./		WO	06/107312		President and Fellows of Harvard College	10-12-2006	
/D.W./		WO	06/132659		President and Fellows of Harvard College	12-14-2006	
/D.W./		WO	07/044034		President and Fellows of Harvard College	04-19-2007	

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
/D.W./		AGARWAL, et al., "Lasing in Single Cadmium Sulfide Nanowire Optical Cavities," *Nano-Lett*, 5(5):917-920 (2005)		
/D.W./		CHEN, "Noncovalent functionalization of carbon nanotubes for highly specific electronic biosensors," *PNAS*, 100(9):4984-4989 (2003)		
/D.W./		CHEN, J., et al., "Large On-Off Ratios and Negative Differential Resistance in a Molecular Electronic Device," *Science*, 286: 1550-51 (1999)		
/D.W./		CHEUNG, C.L., et al., "Diameter Controlled Synthesis of Carbon Nanotubes," *J. Phys. Chem B*, **106**, (2002), pp. 2429-2433.		
/D.W./		CHOI, "Enhancement of Ferroelectricity in Strained $BaTiO_3$ Thin Films," *Science*, 306:1005-1009 (2004)		
/D.W./		CHUNG, et al., "Silicon nanowire devices", *Appl Phys Lett*, 76(15): 2068-2070 (2000)		
/D.W./		COLLIER, C.P., et al., "Electronically Configurable Molecular-Based Logic Gates", *SCIENCE*, vol. 285, July 16, 1999, pp. 391-394;		
/D.W./		CUI ET AL., "Nanowire nanosensors for highly sensitive and selective detection of biological and chemical species", *Science*, August 17, 2001, vol. 293, pp. 1289-1292		
/D.W./		CUI, Yi, et al. "Doping and Electrical Transport in Silicon Nanowires", *The Journal of Physical Chemistry*, Vol. 104, No. 22, June 8, 2000, pp. 5213-5216;		
/D.W./		CUI, Yi, et al., "Diameter-controlled synthesis of single-crystal silicon nanowires", *Applied Physics Letters*, Vol. 78, No. 15, April 9, 2001, pp. 2214-2216.		
/D.W./		CUI, Yu, et al., "Functional Nanoscale Electronic Devices Assembled Using Silicon Nanowire Building Blocks", *SCIENCE*, Vol. 291, February 2, 2001, pp. 851-853;		
/D.W./		DUAN, "Synthesis and optical properties of gallium arsenide nanowires," *Apl Phys Lett*, 76(9):1116-1118 (2000)		
/D.W./		DUAN, X., et al., "High-performance thin-film transistors using semiconductor nanowires and nanoribbons", *Nature*, 425: 274-278 (2003)		
/D.W./		DUAN, X., et al., "Nonvolatile Memory and Programmable Logic from Molecule-Gated Nanowires," *Nano Letters*, **2**(5), (2002), pp. 487-490.		
/D.W./		DUAN, X., et al., "Single-nanowire electrically driven lasers," *Nature*, **421**, (2003), pp. 241-245		
/D.W./		DUAN, Xiangfeng, et al., "General Synthesis of Compound Semiconductor Nanowires", *Adv. Materials. 2000,* 12, No. 4, pp. 298-302, published on Web 02/17/2000;		
/D.W./		DUAN, Xiangfeng, et al., "Indium phosphide nanowires as building blocks for nanoscale electronic and optoelectronic devices", *Nature*, Vol. 409, January 4, 2001, pp. 66-69;		
/D.W./		DUAN, Xiangfeng, et al., "Laser-Assisted Catalytic Growth of Single Crystal GaN Nanowires", *J. Am. Chem. Soc. 2000*, 122, October 18, 1999, pp. 188-189; published on Web 12/18/99		

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)				APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
				APPLICANT: Lieber, et al.	
Sheet	8	of	12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

OTHER ART — NON PATENT LITERATURE DOCUMENTS

/D.W./		ESFARJANI, K., et al., "Electronic and transport properties of N-P doped nanotubes", *Appl Phy Lett*, 74(1): 79-81 (1999)		
		~~FRIEDMAN, "High-speed integrated nanowire circuits," *Nature*, 434:1085 (2005)~~		
/D.W./		GIVARGIZOV, E.I., et al., "Fundamental Aspects of VLS Growth," *J. Crystal Growth*, **31**, (1975), pp: 20-30		
/D.W./		GRADECAK, "GaN nanowire lasers with low lasing thresholds," *Apl Phys Lett*, (87):173111-173111-3 (2005)		
/D.W./		GUDIKSEN ET AL., "Growth of nanowire superlattice structures for nanoscale photonics and electronics", *Nature*, 2002, vol. 415, pp. 617-620		
/D.W./		GUDIKSEN, M.S., et al., "Size-Dependent Photoluminescence from Single Indium Phosphide Nanowires," *J. Phys. Chem. B*, **106**, (2002), pp. 4036-4039		
/D.W./		GUDIKSEN, M.S., et al., "Synthetic Control of the Diameter and Length of Single Crystal Semiconductor Nanowires," *J. Phys. Chem. B*, **105**, (2001), pp. 4062-4064.		
/D.W./		GUDIKSEN, Mark S., et al. "Diameter-Selective Synthesis of Semiconductor Nanowires", *J. Am. Chem. Soc. 2000*, 122, June 6, 2000, pp. 8801-8802;		
/D.W./		GUO, et al., "Nanoscale Silicon Field Effect Transistors Fabricated Using Imprint Lithography," *Appl Phys Lett*, 71(13):1881-1883; (1997)		
/D.W./		GUO, L., et al., "A Silicon Single-Electron Transistor Memory Operating at Room Temperature," *Science*, 275: 649-651 (1997)		
/D.W./		HAHM, "Direct Ultrasensitive Electrical Detection of DNA and DNA Sequence Variations Using nanowire Nanosensors," *Nano-Lett*, 4(1):51-54 (2003)		
/D.W./		HARAGUCHI ET AL, "Polarization dependence of light emitted from GaAs p-n junctions in quantum wire crystals", *Journal of Applied Physics*, April 1994, vol. 75, no. 8, pp. 4220-4225		
/D.W./		HARAGUCHI, et al., "GaAs *p-n* junction formed in quantum wire crystals", *Appl Phys Lett*, 60: 745-747 (1992)		
/D.W./		HEATH, "A liquid solution synthesis of single crystal germanium quantum wires," *Chem Phys Lett*, 208(3,4):263-265 (1993)		
/D.W./		HIRUMA, "GaAs free-standing quantum-size wires," *J Apl Phys*, 74(5):3162-3171 (1993)		
/D.W./		HIRUMA, K., et al., "Self-organized growth of GaAs/InAs heterostructure nanocylinders by organometallic vapor phase epitaxy," *J. Crystal Growth*, **163**, (1996), pp: 226-231		
/D.W./		HOLMES, et al., Control of Thickness and Orientation of Solution-Grown Silicon Nanowires, Science, **287**, (2000), pp. 1471-1473		
/D.W./		Hsu, S.T., et al. "Mfmox Ferroelectric Memory Transistor," Non-Volatile Memory Technology Symposium, Orlando, Fl, Nov. 15-17, 2004, p. 24-27		
/D.W./		HU, J "Serpentine Superlattice nanowire-Array Lasers," *Quant Elec*, 31(8):1380-1388 (1995)		
/D.W./		HU, J., et al., "Chemistry and Physics in One Dimension: Synthesis and Properties of Nanowires and Nanotubes," *Acc. Chem. Res.*, **32**, (1999), pp. 435-445.		
/D.W./		HU, J., et al., "Controlled growth and electrical properties of heterojunctions of carbon nanotubes and silicon nanowires," *Nature*, **399**, (1999), pp. 48-51.		
/D.W./		HU, S.-Y., "Serpentine Superlattice Nanowire-Array Lasers, "*J. Quant. Electron.*, **31**(8), (1995), pp. 1380-1388		
/D.W./		HUANG, et al., "Logic Gates and Computation from Assembled Nanowire Building Blocks", *Science*, 294: 1313-1317 (2001)		
/D.W./		HUANG, M., et al., "Room-Temperature Ultraviolet Nanowire Nanolasers," *Science*, **292**, (2001), pp. 1897-1898		
/D.W./		HUANG, Y., et al., "Gallium Nitride Nanowire Nanodevices," *Nano Letters*, **2**(2), (2002), pp. 101-104.		

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
	APPLICANT: Lieber, et al.	
Sheet 9 of 12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

OTHER ART — NON PATENT LITERATURE DOCUMENTS

/D.W./		Huang, Yu, et al., "Directed Assembly of One-dimensional Nanostructures into Functional Networks", *SCIENCE*, Vol. 291, January 26, 2001, pp. 630-633;		
		~~"IBM creates highest performing nanotube transistors", IBM News, 2002~~		
/D.W./		JAVEY, A., "Ballistic Carbon Nanotube Field-Effect Transistors, *Nature*, 424:654-657 (2003) [S:]		
/D.W./		JIN, "Scalable Interconnection and Integration of Nanowire Devices without Registration," *Nano-Lett*, 4(5):915-919 (2004)		
/D.W./		JOHNSON, J.C., et al., "Single gallium nitride nanowire lasers," *Nature Materials*, **1**, (2002), pp. 106-110		
/D.W./		JOHNSON, J.C., et al., "Single Nanowire Lasers," *J. Phys. Chem.*, **105**(46), (2001), pp. 11387-11390		
/D.W./		JOSELEVICH, E., et al., "Vectorial Growth of Metallic and Semiconducting Single-Wall Carbon Nanotubes," *Nano Letters*, **2**(10), (2002), pp. 1137-1141.		
/D.W./		KANJANACHUCHAI ET AL., "Coulomb blockade in strained-Si nanowires on leaky virtual substrates", *Semiconductor Science and Technology*, 2001, vol. 16, pp. 72-76		
/D.W./		KONG ET AL. "Nanotube molecular wires as chemical sensors", *Science*, January 28, 2000, vol. 287, pp. 622-625		
/D.W./		KONG, J., et al., "Chemical vapor deposition of methane for single-walled carbon nanotubes," *Chem. Physics Letters*, **292**, (1998), pp: 567-574		
/D.W./		KONG, J., et al., "Synthesis of individual single-walled carbon natubes on patterned silicon wafers," *Nature*, **395**, (1998), pp: 878-881		
/D.W./		LAHOUN ET AL., "Epitaxial core-shell and core-multishell nanowire heterostructures", *Nature*, 2002, vol. 420, pp. 57-61		
/D.W./		LAHOUN, L.J. et al., "Semiconductor nanowire heterostructures," 2004, *Phil. Trans. R. Soc. Lond.*, 362: 1247-1260 (2004)		
/D.W./		LAW, "Nanoribbon Waveguides for Subwavelength Photonics Integration," *Science*, 305(27):1269-1273 (2004)		
/D.W./		LEFF, "Thermodynamic Control of Gold Nanocrystal Size: Experiment and Theory," *J Phys Chem*, 99:7036-7041 (1995)		
/D.W./		LEI, "Nanowire transistors with ferroelectric gate dielectrics: Enhanced performance and memory effects," *Apl Phys Lett*, 84(22):4553-4555 (2004)		
/D.W./		LIEBER, "Nanoscale Science and Technology: Building a Big Future from Small Things," *MRS Bull*, www.mrs.org/publications/bulletin (2003)		
/D.W./		LIEBER, "Nanowire Superlattices," *Nanoletters*, 2(2):81-82 (2002)		
/D.W./		LU, W. et al., "One-dimensional hole gas in germanium/silicon nanowire heterostructures," *PNAS*, 102: 10046-10051 (2005)		
/D.W./		MARTEL, R., et al., "Single- and multi-wall carbon nanotube field-effect transistors," *Apl Phys Lett*, 73(17), (1998), pp.:2447-2449		
/D.W./		MCALPINE, "High-Performance Nanowire Electronics and Photonics and Nanoscale Patterning on Flexible Plastic Substrates," *Proc IEEE*, 93(7):1357-1363 (2005)		
/D.W./		MCALPINE, M. "High-Performance Nanowire Electronics and Photonics on Glass and Plastic Substrates", *Nano Letters*, 3(11): 1531-1535 (2003)		
/D.W./		MCALPINE, M., "Nanoimprint Lithography for Hybrid Plastic Electronics", *Nano-Letters*, 3(4): 443-445 (2003)		
/D.W./		MENON, "Fabrication and Evaluation of Nanoelectrode Ensembles," *Anal Chem*, 67(13):1920-1928 (1995)		
/D.W./		MIZUTANI, T., "Fabrication and Characterization of Carbon Nanotube FETs," Quantum Sensing and Nanophotonic Devices II, M. Flazeghi, G.J. Brown, Ed., Proc SPIE, Vol. 5732, p. 28-36		
/D.W./		MORALES, et al., "A Laser Ablation Method for the Synthesis of Crystalline Semiconductor Nanowires", *Science*, 279: 208-211 (1998)		

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
	APPLICANT: Lieber, et al.	
Sheet 10 of 12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

OTHER ART — NON PATENT LITERATURE DOCUMENTS

/D.W./		MUSIN, R. N., "Structural and Electronic Properties of Epitaxial Core-Shell Nanowire Heterostructures," *Phys. Rev. B*, 71:155318		
/D.W./		NOSHO, Y., "n-type Carbon Nanotube Field-Effect Transistors Fabricated by Using Ca Contact Electrodes," Appl. Phys. Lett., 86:73105		
/D.W./		PADESTE, et al., "Modular amperometric immunosensor devices", 1995, *8th International Conference on Solid-State Sensors an Actuators and Eurosensors IX*, 357(C7): 487-490 (1995)		
/D.W./		PATOLSKY, "Electrical detection of single viruses," *PNAS*, 101(39):14017-14022 (2004)		
/D.W./		PATOLSKY, "Nanowire nanosensors," *Mat Today*, 1369(7021): 20-28 (2005)		
/D.W./		PAVESI, "Optical gain in silicon nanocrystals," *Nature*, 408:440-444 (2000)		
/D.W./		QI, "Toward Large Arrays of Multiplex Functionalized Carbon Nanotube Sensors for Highly Sensitive and Selective Molecular Detection," *Nano-Lett*, 3(3):347-351 (2003)		
/D.W./		RUECKES, T., et al., "Carbon Nanotube-Based Nonvolatile Random Access Memory for Molecular Computing," *Science*, **298**, (2000), pp. 94-97.		
/D.W./		STAR ET AL., "Preparation and properties of polymer-wrapped single-walled carbon nanotubes", *Angew. Chem. Int.*, 2001, vol. 40, no. 9, pp. 1721-25		
/D.W./		TAKAYAMA, S., et al., "Patterning cells and their environments using multiple laminar fluid flows in capillary networks", *Proc. Natl. Acad. Sci.*, 96: 5545-5548 (1999)		
/D.W./		TANS, et al., "Room-temperature transistor based on a single carbon nanotube", *Nature*, 393: 49-52 (1998)		
/D.W./		THESS, A., et al., "Cyrstalline Ropes of Metallic Carbon Nanotubes," *Science*, **273**, (1996), pp:483-487		
/D.W./		TIEFENAUER, et al., "Towards Amperometric Immunosensor Devices" *Biosensors and Bioelectronics*, 12(3): 213-223 (1997)		
/D.W./		TONG, "Subwavelength-diameter silica wires for low-loss optical wave guiding," *Nature*, 426(18):816-819 (2003)		
/D.W./		URBAN, "Single-Crystalling Barium Titanate Nanowires," *Adv Mat*, 15(5):423-426 (2003)		
/D.W./		VOSSMEYER, T. et al., "Combinatorial approaches toward patterning nanocrystals," Journal of Applied Physics, 1998, 84(7):3664-3670		
/D.W./		WANG ET AL., "Highly polarized photoluminescence and photodetection from single indium phosphide nanowires", *Science*, 2001, vol. 293, pp. 1455-1457		
/D.W./		WANG, "Label-free detection of small-molecule-protein interactions by using nanowire nanosensors," *PNAS*, 102(9):3208-3212 (2005)		
/D.W./		WANG, N., et al., "SiO_2-enhanced synthesis of Si nanowires by laser ablation," *App. Physics Letters*, **73**(26), (1998), pp: 3902-3904		
/D.W./		WEI, Q., et al., "Synthesis of Single Crystal Bismuth-Telluride and Lead-Telluride Nanowires for New Thermoelectric Materials," *Mat. Res. Soc. Symp. Proc.*, **581**, (2000), pp. 219-223.		
/D.W./		WHANG, "Large-Scale Hierarchical Organization of Nanowire Arrays for Integrated Nanosystems," *Nano-Lett*, 3(9):1255-1259 (2003)		
/D.W./		WHANG, "Nanolithographys Using Hierarchically Assembled Nanowire Masks," *Nano-Lett*, 3(7):951-954 (2003)		
/D.W./		WOLF, et al., "Silicon Processing For the VLSI ERA", *Lattice Press*, 1:12-13 (2000)		
/D.W./		WONG, S., et al., "Covalently funtionalized nanotubes as nanometre-sized probes in chemistry and biology," *Nature*, **394**, (1998), pp: 52-55		
/D.W./		WU ET AL., "Block-by-block growth of single-crystalline Si/SiGe superlattice nanowires", web release date, January 19, 2002, http://pubs.acs.org/hotartcl/nalefd/2002/nl0156888_rev.html		
/D.W./		WU, "Controlled Growth and Structures of Molecular-Scale Silicon Nanowires," *Nano-Lett*, 4(3):433-436 (2004)		

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified)	APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
	APPLICANT: Lieber, et al.	
Sheet 11 of 12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

OTHER ART — NON PATENT LITERATURE DOCUMENTS

/D.W./		WU, "Single-crystal metallic nanowires and metal/semiconductor nanowire heterostructures," *Nature*, 430:61-65 (2004)		
/D.W./		XIANG, "Ge/Si nanowire heterostructures as high-performance field-effect transistors," *Nature*, 441:489-493 (2006)		
/D.W./		YAMADA, Y., "Analysis of submicron carbon nanotube field-effect transistors", *Appl Phys Lett*, 76: (5): 628-630 (2000).		
/D.W./		YANG, "Wires on water," *Nature*, 425:243-244 (2003)		
/D.W./		YANG, P. et al., "Controlled Growth of ZnO Nanowires and Their Optical Properties," *Adv. Funct. Matter*, **12**(5), (2002), pp. 323-331		
/D.W./		YU, et al., "Nanoscale silicon wires synthesized using simple physical evaporation", *Appl Phys Lett*, 72 (26): 3458-3460 (1998).		
/D.W./		YUN, W.S., et al., "Ferroelectric Properties of Individual Barium Titanate Nanowires Investigated by Scanned Probe microscopy," *Nano Letters*, Vol. 2, No. 5, p. 447-450 (2002)		
/D.W./		ZHENG, "Multiplexed electrical detection of cancer markers with nanowire sensor arrays," *Nature Biotech*, 23(10):1294-1301 (2005)		
/D.W./		ZHENG, "Synthesis and Fabrication of High-Performance n-Type Silicon Nanowire Transistors," *Adv Matt*, 16(21):1890-1893 (2004)		
/D.W./		ZHONG, "Coherent Single Charge Transport in Molecular-Scale Silicon Nanowires," *Nano-Lett*, 5(6):1143-1146 (2005)		
/D.W./		ZHONG, "Nanowire Crossbar Arrays as Address Decoders for Integrated Nanosystems," *Science*, 302:1377-1379 (2003)		
/D.W./		ZHONG, "Synthesis of p-Type Gallium Nitride Nanowires for Electronic and Photonic Nanodevices," *Nano-Lett*, 3(3):343-346 (2003)		
/D.W./		ZHOU, G., et al., "Growth morphology and micro-structural aspects of Si nanowires synthesized by laser ablation," *J. of Crystal Growth*, **197**, (1999), pp: 129-135		
		International Preliminary Exam. Report from Int. Apl. No. PCT/US01/48230, filed December 11, 2001		
/D.W./		International Preliminary Exam. Report from Int. Apl. No. PCT/US2005/020974, filed June 15, 2005		
/D.W./		International Search Report from Int. Apl. No. PCT/US01/48230, filed December 11, 2001		
/D.W./		International Search Report from Int. Apl. No. PCT/US02/16133, field May 20, 2002		
/D.W./		International Search Report from Int. Apl. No. PCT/US03/22061, filed July 16, 2003		
/D.W./		International Search Report from Int. Apl. No. PCT/US03/22753, filed July 21, 2003		
/D.W./		International Search Report from Int. Apl. No. PCT/US2005/004459, filed February 14, 2005		
/D.W./		International Search Report from Int. Apl. No. PCT/US2005/020974, filed June 15, 2005		
/D.W./		International Search Report from Int. Apl. No. PCT/US2005/026759, filed July 28, 2005		
/D.W./		International Search Report from Int. Apl. No. PCT/US2005/034345, filed November 21, 2005		
/D.W./		Invitation to Pay Addition Fees from Int. Apl. No. PCT/US2005/044212, filed December 6, 2005		
/D.W./		Office Action mailed 01/03/2005 in U.S. Patent Application No. 10/196,337, filed July 16, 2002		
/D.W./		Office Action mailed 01/15/2003 in U.S. Patent Application No. 10/020,004, filed 12/11/2001		
/D.W./		Office Action mailed 02/23/2006 in U.S. Patent Application No. 10/196,337, filed July 16, 2002		
/D.W./		Office Action mailed 03/11/2005 in U.S. Patent Application No. 09/935,776, filed August 22, 2001		
/D.W./		Office Action mailed 03/14/2005 in U.S. Patent Application No. 10/020,004, filed December 11, 2001		
/D.W./		Office Action mailed 04/07/2006 in U.S. Patent Application No. 10/734,086, filed December 11, 2003		
/D.W./		Office Action mailed 04/23/2007 in U.S. Patent Application No. 11/582,167, filed October 17, 2006		

1211077-1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./

FORM PTO-1449/A and B (Modified) **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**				APPLICATION NO.: 10/588,833	ATTY. DOCKET NO.: H0498.70217US02
				FILING DATE: August 9, 2006	CONFIRMATION NO.: 4453
				APPLICANT: Lieber, et al.	
Sheet	12	of	12	GROUP ART UNIT: 2667	EXAMINER: Not yet assigned

OTHER ART — NON PATENT LITERATURE DOCUMENTS

/D.W./		Office Action mailed 05/16/2006 in U.S. Patent Application No. 09/935,776, filed August 22, 2001		
/D.W./		Office Action mailed 05/25/2005 in U.S. Patent Application No. 10/196,337, filed July 16, 2002		
/D.W./		Office Action mailed 06/25/2004 in U.S. Patent Application No. 10/020,004, filed 12/11/2001		
/D.W./		Office Action mailed 06/30/2004 in U.S. Patent Application No. 10/196,337, filed 07/16/2002		
/D.W./		Office Action mailed 08/30/2005 in U.S. Patent Application No. 09/935,776, filed August 22, 2001		
/D.W./		Office Action mailed 08/30/2005 in U.S. Patent Application No. 10/020,004, filed December 11, 2001		
/D.W./		Office Action mailed 09/02/2003 in U.S. Patent Application No. 09/935,776, filed August 22, 2001		
/D.W./		Office Action mailed 09/15/2004 in U.S. Patent Application No. 09/935,776, filed August 22, 2001		
/D.W./		Office Action mailed 10/27/2006 in U.S. Patent Application No. 10/734,086, filed December 11, 2003		
/D.W./		Office Action mailed 11/02/2006 in U.S. Patent Application No. 10/196,337, filed July 16, 2002		
/D.W./		Office Action mailed 11/29/2005 in U.S. Patent Application No. 10/995,075, filed November 22, 2004		
/D.W./		Office Action mailed 12/20/2006 in U.S. Patent Application No. 11/012,549, filed December 15, 2004		
/D.W./		Written Opinion from Int. Apl. No. PCT/US01/48230, filed December 11, 2001		
/D.W./		Written Opinion from Int. Apl. No. PCT/US2005/004459, filed February 14, 2005		
/D.W./		Written Opinion from Int. Apl. No. PCT/US2005/020974, filed June 15, 2005		
/D.W./		Written Opinion from Int. Apl. No. PCT/US2005/026759, filed July 28, 2005		
/D.W./		Written Opinion from Int. Apl. No. PCT/US2005/034345, filed November 21, 2005		

EXAMINER:	DATE CONSIDERED:
/Daren Wolverton/	06/09/2009

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. __ , filed __ , and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - The Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC 371 after June 30, 2003. See 37 CFR 1.491(b). For all patent applications filed on or before June 30, 2003, copies of cited U.S. patents and patent application publications are still required unless an eIDS is filed. Copies of all other patent(s), publication(s), or other information listed must still be provided, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.W./